tes or hypertension and received fewer revascularization procedures (22%) within 30 days than men (35%, p<0.001). Unadjusted 1-year survival was not significantly different between men (8%) and women (9%). Advanced age (HR1.06 95%CI(1.05-1.07)), histories of myocardial infarction (MI) (1.7 (1.4-2.0)) or heart failure (1.7(1.3-2.1)), diabetes (1.3(1.1-1.6)), hypercholesterolemia (1.3(1.0-1.5)), ascending quartiles of troponin (1.4(1.0-1.9), 1.7(1.3-2.4), 2.2(1.6-3.0)), MI within 30 days (3.4(2.7-4.3)), elevated heart rate (1.02(1.01-1.02)) and serum creatinine levels (1.4(1.3-1.6)) were associated with a higher 1-year mortality in both genders, whereas, angioplasty within 30 days was associated with lower risk of death (0.5(0.4-0.7)). ST-depression (1.3(1.0-1.7) p(interaction)<0.05) on admission and CRP>10mg/L (1.3(1.0-1.8) p(interaction)<0.05) were predictors of 1-year death in men but not women. Men with MI on admission were at lower risk of death (0.6(0.4-0.8) p(interaction)=0.002) than women or patients without MI on admission. **Conclusions:** Although long-term prognosis is comparable between men and women with NSTE-ACS, some predictors of death differ, which may have important implications for risk management and choice of treatment.

POSTER SESSION

# 1003 Miscellaneous Topics in Stable Coronary Disease

Sunday, March 30, 2003, 9:00 a.m.-11:00 a.m.
McCormick Place, Hall A
Presentation Hour: 9:00 a.m.-10:00 a.m.



## 1003-89 Is Enhanced External Counterpulsation Effective for Angina Relief in Diabetic Patients Who Are Not Candidates for Transcatheter Intervention?

Georgiann C. Linnemeier, Elizabeth D. Kennard, Ozlem Soran, Sheryl F. Kelsey, University of Pittsburgh, Pittsburgh, PA

**Background:** Percutaneous coronary intervention in the diabetic patient is problematic. Enhanced external counterpulsation (EECP) is a noninvasive analogue of the intra-aortic balloon pump designed to increase myocardial perfusion pressure and decrease cardiac workload. EECP has been demonstrated to be safe and effective in treating angina; however, the effectiveness of EECP for the treatment of angina in diabetic patients who are not considered candidates for transcatheter intervention is unknown.

**Methods:** We analyzed demographic and clinical outcome data from 616 diabetic patients (from 32 sites) diagnosed with Canadian Cardiovascular Society (CCS) class III or IV angina who were not revascularization candidates by referring physician's assessment. EECP was given 1-2 hours daily with 79% of patients completing a course of treatment (mean, 37 hours). Patients were followed for six months.

**Results:** The mean age was 66 years, and 36% were female. Coronary artery disease was of long duration (mean, 11 years), frequently multivessel (81%), and most patients had prior percutaneous coronary intervention (74%) or coronary artery bypass surgery (72%). Congestive heart failure (44%), and previous myocardial infarction (73%) were reported often (mean left ventricular ejection fraction, 45%). Patients were highly symptomatic, reporting 11.5 episodes of angina/week, requiring 10.2 sublingual nitroglycerin/week. Medical management was considered optimal. Upon completion of treatment, 88% of patients reported a decrease of >= 1 CCS angina class with 83% reporting class II, I, or no angina. There was a decrease of 8.7 anginal episodes/week with a concomitant decrease of 8.2 nitroglycerin/week. At six-month follow-up, angina reduction was maintained in 74% of patients with 74% reporting class II, I, or no angina.

**Conclusion:** Despite steady improvement in transcatheter interventional techniques and outcomes, there is a growing population of patients who have exhausted the revascularization armamentarium. Novel treatments such as EECP can offer angina reduction with maintenance of benefit for select diabetic patients with advanced coronary artery disease.

## 1003-90 Cardiac Troponin I Rise Equally Occurs After Diagnostic Coronary Angiograms in Stable Patients

Glenn Van Langenhove, Paul Vermeersch, Middelheim Hospital, Antwerp, Belgium

**Background**: Troponin I has been suggested as an excellent and early marker of unstable coronary artery disease. It has been linked to future outcome of patients admitted to the hospital with unstable coronary syndromes, and in patients that received interventional treatment. No literature exists on the occurrence of Troponin I rise following a diagnostic angiogram

**Methods**: Patients were only included if they did not have flow-limiting lesions in their coronary artery tree. We prospectively measured Troponin I values before, and 8, 16 and 24 hours after a diagnostic angiogram and at 14 days after the index procedure. Other cardiac enzymes were also assessed.

**Results**: No events occurred during hospital stay nor the 14 day follow-up period. A summary of the data available is shown in the table.

| | | pre | 8hrs | 16hrs | 24hrs |
|---|---|---|---|---|---|
| Procedure successful (N) | 54 | | | | |
| Troponin I – rise above 0.1 mg/dL (N,(%)) | | 1 (2) | 6 (12) | 5 (10) | 8 (16) |
| CK/CK-MB rise (U/L) | | 0 | 0 | 0 | 0 |
| In-hospital events (N) | 0 | | | | |
| ECG changes post procedure (N) | 2 | | | | |
| Adverse events at 15 days (N) | 2 | | | | |

**Conclusion**: Surprisingly, significant Troponin I rises were found in up to 16% of patients that underwent a diagnostic angiogram for stable coronary artery disease, with no significant lesions present. These findings may have an impact on conclusions drawn from previous interventional cardiology trials that suggested future events depended upon Troponin status following intervention.

## 1003-91 Folate-Rich Diet Does Not Significantly Reduce the Homocysteine Levels as Compared With the Usual Secondary Prevention Recommendations in Patients With Coronary Artery Disease: A Prospective Randomized Study

Huerin Melina, B. Rolong, R. Henquin, R. Zilberberg, C. Gambarte, O. Mendoza, M. Kriskovich, N. Vainstein, C. Zeballos, L. Guzman, Instituto Cardiovascular de Buenos Aires, Buenos Aires, Argentina

Increasing levels of homocysteine are strongly associated with the incidence of cardiovascular disease. Recent report appears to indicate a clinical benefit in reducing homocysteine levels. Even though it is well established the effectiveness in reducing homocysteine levels with vitamine B complex, the effect of diet is not well documented. The aim of the present study was to determine the role of folate-rich diet in reducing homocysteine levels and to compare it effect with the vitamin reduction and with the regular secondary prevention recommendations. Sixty patients with prior history of CAD were randomly assigned to three different treatments strategies for a three months period. The vitamin group (Group V), received vitamin B9: 2.5 mg, B6: 25 mg, and B12: 0.5 mg; the diet group received folate-rich diet (Group D) and a third group received the usual secondary prevention recommendations, and served as control (Group C). Baseline and 3 months homocysteine levels were measured in all pts. Results: The compliance with the treatment strategy was 99% for group V and 80% for group D, (p: 0.001).

**Conclusions**: This prospective randomized study shows that folate-rich diet did not show any significant benefit in decreasing homocysteine levels despite a relatively high compliance with the diet as compare with the usual secondary prevention recommendations. As expected, vitamin treatment successfully decrease homocysteine levels and was well tolerated.

P from baseline to 3 month: *p:0.02, **p:0.0001.

| Homocysteine umol/L | Grupo C (n:20) | Grupo D (n:20) | Grupo V (n:20) | P Value |
|---|---|---|---|---|
| Baseline | 14+0.8 | 14.2+0.8 | 16.4+0.98 | NS |
| 3 months | 12.4+0.7 | 12.5+0.7 | 10.7+0.5 | NS |
| Changes | -1.7+0.8* | -1.7+0.9* | -5.7+1.2** | 0.007 |

## 1003-114 Mildly Reduced Creatinine Clearance Is Associated With Coronary Artery Disease in Women: The NHLBI-Sponsored WISE Study

Marian B. Olson, Richard Holubkov, Linda Fried, Virgina Reeser, Sunil Mankad, Carl J. Pepine, Richard Kerensky, C. Noel Bairey Merz, Barry L. Sharaf, George Sopko, William J. Rogers, Steven E. Reis, University of Pittsburgh, Pittsburgh, PA

Background: Mild renal insufficiency is associated with an increased risk for cardiovascular events in women with coronary artery disease (CAD). However, the relationship between mild renal insufficiency and atherosclerotic CAD has not been investigated.

Methods: 721 women with chest pain underwent quantitative coronary angiography, risk factor and serum creatinine assessment in the Women's Ischemia Syndrome Evaluation (WISE) Study. Estimated creatinine clearance (ml/min) was calculated from serum creatinine using the Cockroft-Gault equation. Of these, 248 (34%) had an estimated creatinine clearance of 50-80 ml/min, defined as mild renal insufficiency; 473 had an estimated clearance greater than 80 ml/min, normal renal function. Women with one or more >50% diameter stenosis were classified as having significant CAD. CAD severity score was calculated using a modified Gensini index. Interleukin-6 levels were measured in 508 women.

Results: As compared to women with normal creatinine clearance, those with mild renal insufficiency were older (64 vs. 54 yrs., p<0.001) were more likely have higher systolic blood pressure (p=0.01), dyslipidemia (p=0.05) and significant CAD (49% vs 30%, p =0.001). Modified Gensini index scores were higher in these women (18 +/-16 vs. 12 +/-12, p< 0.001). Women with mild renal insufficiency were 2.3 times more likely to have significant CAD (95% CI 1.6-3.0)(p< 0.001) Mild renal insufficiency was associated with a 1.6-fold (95% CI=1.0-2.6) increased risk of CAD after adjustment for age, risk factors, interleukin 6 levels and use of hormone replacement therapy (p< 0.05). Similar finding were noted when using serum creatinine to define renal function. Serum creatinine levels of 1.2-1.9, defined as mild renal insufficiency, were associated with a 3.2 fold (95% CI=1.4-7.2) increase of significant CAD independent of risk factors (p< 0.01)